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DIBOTHRIOCEPHALUS TÆNIOIDES LEON, A NEW
CASE IN ROUMANIA*

N. LEON

The helminth which forms the object of this note was sent by Doctor Bacaloglou, Professor of Clinical Medicine in our faculty, and accompanied by the following record: "Mr. P., 60 years old, director of a bank, had suffered for two months from gastro-intestinal troubles. He is habitually of good health, not syphilitic, alcoholic, nor given to smoking. The urine at present contains neither sugar nor albumen.

"In spite of the efforts of several physicians, he continued to suffer with vague intestinal pains, and especially a painful morning diarrhea. On some days he had five or six evacuations, accompanied by particles of solid mucus and even of whitish masses like coagulated white of egg. Milk diet to which he was submitted originally, aggravated all these symptoms. I discontinued the milk and put the patient on a diet composed of gruels, soups, and marmalades. I prescribed for him 0.50 cg. of calomel, and following this capsules with betol (1.50 gm. daily with salicylated bismuth). Thereupon he expelled a long fragment of a broad tapeworm. As it did not possess the head, I had him take two days later 6 grams of extracts of male fern. In place of obtaining the remainder of the worm, which perhaps was lost with the fecal matter, the patient expelled a large specimen of *Ascaris lumbricoides*.

"I add that the general condition of the patient, in spite of the gastro-intestinal troubles which had persisted for two months, was good. He had none of the anemia described by authors for carriers of the broad tapeworm—anemia which furthermore did not exist among other patients that I have cared for in that disease. A fortnight after the expulsion of the two parasites, I revisited the patient. He was happy at the disappearance of the diarrhea. The phenomena of mucomembranous entero-colitis are certainly related to the parasites that he harbored."

The worm lacks the head, neck and a good portion of the chain with young rings. The length of the part evacuated is 82 cm., but the widest segments measure hardly 6 mm. The color is ashy yellow, and the segments are very delicate. The form of the segments varies according to age. The youngest, that is to say those closest to the head, are a little broader than long, at most one and one-quarter, but

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never several times broader, as in the case of *Dibothriocephalus latus*. The joints change in a gradual manner into a quadrate type equal in both dimensions. At the end the oldest joints are longer than broad, and all the longer because they are more advanced in age. In comparing this specimen of Professor Bacaloglou's with the specimen that I described (No. 2 in the *Centralblatt f. Bakt., I Abt. Originale*, 1916), I determine that the two individuals are the same species. The

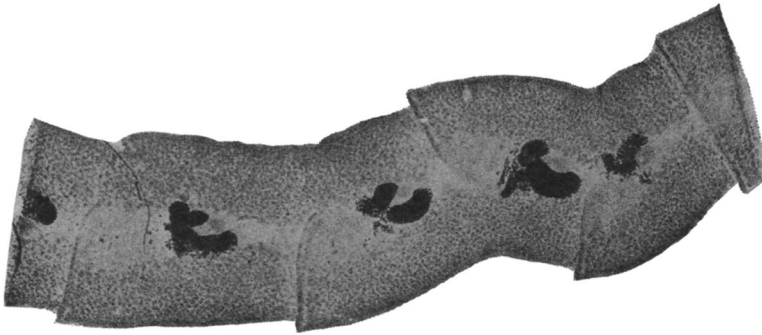


Fig. 1.—*Dibothriocephalus taenioides*. Fragments of chain.

common characteristics which distinguish them from *Dibothriocephalus latus* are not anomalies, as I thought at the beginning, since the anomalies which have been observed among the Bothriocephalids, such as intercalated segments, fenestrated rings, scaly segments, etc., are isolated, or even if they form a portion of the chain, it is relatively

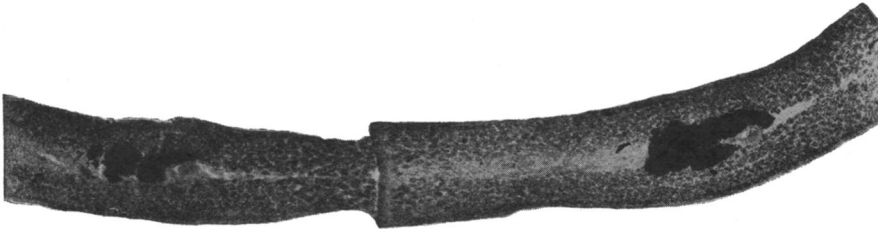


Fig. 2.—End portion of the chain.

very short in relation to the length of the normal worm. The abnormal rings are always situated between other rings of the normal series. The coils of the uterus, which show themselves easily on account of the transparency when they are full of eggs, are two or three in number, and their arrangement takes a characteristic form, bi- or tricornuate (Fig. 3). Even under the naked eye and at a distance one recognizes that the worm is not *Dibothriocephalus latus*. In that species the coils in general number five on each side. They show

themselves under the classic appearance of a rosette, while in *Dibothriocephalus taenioides* they are, as I have said above, bi- or tricornuate.

The characteristics which necessitate the creation of this species under the name of *Dibothriocephalus taenioides* are the following:

(a) *Form of Proglottids*.—The ripe joints are always longer than broad, and the others follow on with the most striking regularity as in *T. solium* or *T. saginata*, first those a little broader than long; then those which are quadrate and following them such as are longer than broad.

(b) *Size of Segments*.—The largest segments of *Dibothriocephalus taenioides* hardly reach 6 mm., but the major part are narrow as in *Dibothriocephalus parvus* Stephens; yet they differ from segments of the latter in that these, although very narrow, are very short, while the segments of *Dibothriocephalus taenioides*, while narrow, are long.

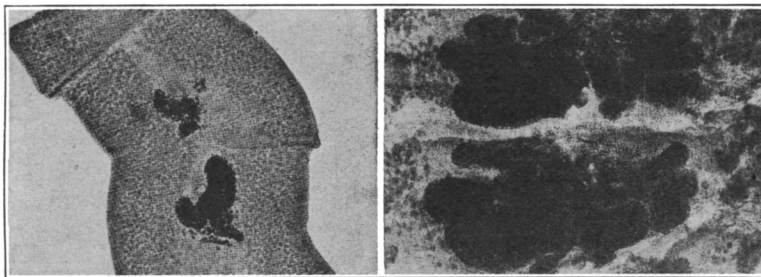


Fig. 3.—At left, *Dibothriocephalus taenioides*, and at right, *Dibothriocephalus latus*, photographed to compare uterine rosettes.

(c) *Form of the Uterine Rosette*.—In *Dibothriocephalus latus* the uterine coils are five on each side, forming the characteristic uterine rosette, while in *Dibothriocephalus taenioides* uterine coils filled with eggs number only two or three.

(d) *Musculature*.—The musculature, both longitudinal and circular, is markedly reduced, so that as a result *Dibothriocephalus taenioides* is very slender.

(e) *The color* is a characteristic ashy yellow.

The preparations are preserved in the collection of the Laboratory of Parasitology of the Faculty of Medicine at Jassy.